JET Meeting Minutes

February 21, 2012

I. Participants

John BairdDRENBaird@hpcmo.hpc.milJeff BooteInternet2boote@internet2.eduRon BroersmaDRENron@spawar.navy.mil

Joe Burrescia ESnet joeb@es.net

Rich Carlson DOE <u>rcarlson@ascr.doe.gov</u>
Bobby Cates NASA/Ames bcates@mail.arc.nasa.gov
Vince Dattoria DOE-SC <u>vince.dattoria@science.doe.gov</u>
Jan Eveleth PNWGigaPoP eveleth@cac.washington.edu

Dale Finkelson I2 dalef@unl.edu

Andy Germain NASA/GSFC Andrew.M.Germain@nasa.gov

Mike Gill NIH/NLM gill@nlm.nih.gov

Dave Hartzell NOAA david.hartzell@noaa.gov

JJ Jamison Juniper jj@juniper.net

Kevin Kranacs NASA kevin.m.kranacs@nasa.gov

Michael Lambert

Paul Love NCO epl@sover.net

Joe Mambretti Northwestern Un j-mambretti@northwestern.edu kmcgratt@cisco.com Kevin McGratten C-Wave Grant Miller **NCO** miller@nitrd.gov Alex Moura **RNP** alex@rnp.br Predrag Radulovic predrag@gloriad.org Glooriad Glenn Ricart **USIgnite** glenn.ricart@us-ignite.org

Anne Richeson Century Link <u>anne.richeson@centurylink.com</u>
Kevin Thompson NSF <u>kthompso@nsf.gov</u>
George Uhl NASA/GSFC george.d.uhl@nasa.gov

Alan Verlo UIC/StarLight verlo@uic.edu

Action Items

1. JET members should review the developing perfSONAR Tool naming recommendation and provide comments to Paul Love: epl@sover.net

Proceedings

This meeting of the JET was chaired by Kevin Thompson of the NSF and Vince Dattoria of DOE.

JETnet Roundtable

DREN: John Baird

The DREN network services recompetition is still ongoing. The DREN Annual Conference is being held June 16 in conjunction with the DREN Users Conference in New Orleans. The URL for the conference Web site is:

www.certain.com/system/profile/web/index.cfm?PKWebId=0x3023868b53

DREN continues to implement DNSSec. The DREN domain is changed from hpcmo.mil to **hpc.mil**

ESnet: Joe Buresscia

ESnet has been upgraded from a Department to a full Division of LBNL. There is a policy review board review of ESnet March 7. ESnet is testing new Alcatel routers and the results should be available next month. The ANI fiber has now been tested and is booked for operations 24 x 7. ESnet is on-track to complete its 100 G network by the end of 2012.

Internet2: Dale Finkelson

Internet2 SH1 peering in New York is operational. Internet2 is working on deploying its 100 G network, Phase 2 which should be completed by the end of this February. Internet2 is peering with GEANT and ESnet across the MANLAN fabric. Peering is being established at MANLASN with Netherlight in support of CERN.

Gloriad: Pedrang Radulovic

Gloriad is upgrading their link to the University of Tennessee to 10 G. They are working with partners in Denmark to deploy Open NSA

NASA: Nothing to report

NOAA: Dave Hartzell

The NWave Program of NOAA has implemented its 5th core node in Seattle, the Weston Building. NOAA is cross connected to the Sand Point site. They are building a link to the NOAA Silver Spring headquarters site. They are designing a circuit from Seattle to Hawaii. Buildout plans are being developed for Fort Worth and Miami. The Hawaii connection is OC3 using a RadCommunications device that takes Ethernet frames and translates to SONET OC3 frames. The equipment cost is of the order of \$1200 and it provides 4200 Mbps throughput.

USIgnite: Glenn Ricart

USIgnite is developing industry partners; there are now 6. USIgnite is preparing launch planning documents and developing a Dear Colleague letter from the NSF for EAGER proposals. USIgnite will be supporting software defined networking, GENI, and rack capabilities. The 2013 budget provides real money for USIgnite.

Brazilian Networking: Alex Moura

Alex Moura provided a URL for Brazilian network maps at: http://www.rnp.br/ceo/trafego/panorama.php

Exchange Points

MAX: No report

WIX: Dale Finkelson

WIX experienced an outage last week due to a torn cable. It came back into service last Friday. They are working on 100 G from the WIX to Internet2 which is scheduled for completion this week.

MAN LAN: Dale Finkelson

MAN LAN set up VLANS through MAN LAN to LHC1 participants for BRF peerings. There was a packet loss on a trans-Atlantic circuit from New York City to

Amsterdam. Testing identified it was not on the MAN LAN side. GEANT is testing their side of the circuit this week.

StarLight: Alan Verlo

StarLight supported a successful dancing performance event between Brazil, Spain, and Thailand using the HPDM network. The StarLight DYNES node for Internet2 is operational and they are working on customer connections. StarLight has a March 13 meeting for working with the LHC1 architecture Committee. Dynamic provisioning will be based on NSI. They are working with Gloriad on an open exchange link with Egypt. And open exchanges to Hong Kong in Asia. StarLight is developing a multi-100G exchange with 100 G channels. They are supporting a showcase for the GLIF October meeting in Chicago. They are doing a GENI design review for their racks project that includes Insta-GENI. They are supporting GDC13 in Los Angeles next month.

Pacific NorthWest GigaPoP: Jan Evelyth

No recent updates

Ames Research Center: Bobby Cates

The Ames exchange is implementing a 10 G link to Lawrence Livermore. They are testing IPv6, LISP, and OGV. They acquired a pair of dark fibers that they will implement initially at 10 G and will migrate to 40 G at a later time. Ames is studying threat scenarios.

TIC Status and Deployment: Bobby Cates

The TIC nodes at Ames Research Center are TIC 1.0 compliant. At the end of this FY TIC 2.0 will be implemented with an October 1 rollout date. It will include new requirements for IPv6, new administrative policies and controls specified. DHS is working on TIC 3.0 development which is planned to include an active device with near-real-time responses to issues. This capability is currently an architectural experiment. NASA has implemented TIC sites at Johnson, Marshall, Ames, Goddard, and Equinex in Chicago. MOUs and SLAs have been implemented. International circuits were not originally included in the TIC architecture but will likely be covered in the TIC 2.0 implementation. TICs accommodate jumbo frames but not multicast.

Naming of perfSONAR IPv4 and IPv6 tools: Rich Carlson

Rich Carlson introduced the latest draft of the perfSONAR tools naming convention recommendation. JET members are requested to provide comments on the current draft that was circulated to the JET. It provides for having a run-time flag using - 4 and -6 respectively to indicate IPv4 and IPv6 respectively. The recommendation will be discussed and adopted at the next JET meeting for forwarding to the LSN for approval.

AI: JET members should review the developing perfSONAR Tool naming recommendation and provide comments to Paul Love: epl@sover.net

Meetings of interest:

March 13-15	GENI Engineering Conference, Los Angeles, CA
March 22-23	US-India workshop on network cooperation, Arlington, VA
April 22-25	ARIN, Vancouver, BC
April 23-25	Internet2 Spring Member Meeting, Arlington, VA

June 16 DREN Annual Conference

July 15-18 ESCC/Internet2 Techs Workshop, Palo Alto, CA

July 18-19 ESCC, Palo Alto, CA October 11-12 GLIF meeting, Chicago, IL

Week of January 13th, 2013 Techs in Paradise (APAN, Jt Techs & ESCC), Honolulu,

HI

Next JET Meetings

March 20, 11:00-2:00, NSF, Room II-415 April 17, 11:00-2:00, NSF, Room II-415